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8/2/99

Secretary Magalie Roman Salas Esq.
Office Of the Secretary
Federal Communications Commission
445 Twelfth St., S.W. Room TW-B204F
Washington, D. C. 20554

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Re: CC Docket 99-200

Secretary Salas,

I spoke with Bill Caton this morning regarding a problem I had while uploading and electronic filing to CC Docket 99-200. I started uploading the filing before midnight EST on 7/30/99. At the completion of the upload the web page asked for confirmation that my filing was complete. I indicated that it was, and then I received a message something like "transfer interrupted". I did not receive a confirmation at that time. After a few minutes of waiting for the confirmation, I attempted to upload again, but was unable to access the ECFS server until about an hour and a half later. This time I did get a confirmation (a copy of which is included as the second page of this package), which indicated the date received as 8/2/99 (incremented to the next weekday from my actual upload).

After explaining the problem to Mr. Caton , he suggested that I send an original and four copies of my filing to you, which would facilitate adjusting the filing date to 7/30/99.

I also mentioned to Mr. Caton that upon review of my own comments I noticed several mistakes I had made in my original ECFS filing. The comments are corrected in this hard copy filing. I have also e-mailed the corrected electronic version to Rosemarie Muller at ECFS. She indicated that she would be able to correct the comments from my e-mailing, however she will need to get word from you or Mr. Caton about revising the filing date to 7/30/99.

Let me know if you need any additional information from me.

Thank you very much for your time and trouble.

Sincerely,

Gilbert Yablon
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Federal Communications Commission

The FCC Acknowledges Receipt of Comments From ...
Gilbert J. Yablon
...and Thank You for Your Comments

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Docket: 99-200

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updated 03/25/98

Before the FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Numbering Resource Optimization	)	CC Docket No. 99-200
	)	
Connecticut Department of Public Utility Control Petition for Rulemaking to Amend the Commission's Rule Prohibiting Technology-Specific or Service-Specific Area Code Overlays	)	RM No. 9258
	)	
Massachusetts Department of Telecommunications and Energy Petition for Waiver to Implement a Technology-Specific Overlay in the 508, 617, 781, and 978 Area Codes	)	NSD File No. L-99-17
	)	
California Public Utilities Commission and the People of the State of California Petition for Waiver to Implement a Technology-Specific or Service-Specific Area Code	)	NSD File No. L-99-36

To: The Commission

COMMENTS OF Gilbert J. Yablon

On June 2, 1999, the Federal Communications Commission issued a Notice of Proposed Rulemaking in Docket No. 99-200, seeking comment on Numbering Resource Optimization methods designed to increase the efficiency with which telecommunications carriers use telephone numbering resources. In response to this notice, I respectfully submit comments on the following items:

I. mandatory ten-digit dialing
II. area code relief
III. area code splits
IV. area code overlays
V. 8-digit dialing for overlays (fully described in the attached document).

Summary of attached document:
The attached document entitled *"Comments of Gilbert J. Yablon Regarding 8-digit Dialing For Overlays, Filed Pursuant to ALJ Timothy Kenney's Ruling of June 29, 1999"* is an in-depth discussion of a simplified 8-digit dialing system for overlaid area codes. The document describes how 8-digits can be used to dial standard 10-digit telephone numbers for all calls within overlay regions. Technical, regulatory and human factors issues are discussed, and responses are given to comments from two telecommunications industry reviews. The document was originally submitted to the California Public Utilities Commission on July 23, 1999, in the matter of the California Commission's Order Instituting Rulemaking on the [California] Commission's Own Motion regarding [California] Commission Policy on Area Code Relief, Rulemaking R.98-12-014 (filed December 17, 1998).

I. Mandatory ten-digit dialing.

Mandatory ten-digit dialing is a great way to simplify network and number administration issues for the telecommunications industry, however it creates disruption, expense and hardship for the consumer. The FCC and the telecommunications industry are already aware that *"there is often significant customer resistance to ten-digit dialing."*[1] Rather than interpret customer resistance as something that is slowing the evolution of the telephone network and getting in the way of progress, the telcos should be encouraged to listen to what their customers are asking for. It is reasonable for customers to expect that technology and competition should make using the telephone simpler -- but instead, the telephone experience is becoming more difficult.

Ten-digit dialing is undesirable from a customer's perspective, and the issues listed in paragraphs *122 - 129* of *FCC 99-122* do not justify a national mandate for ten-digit dialing. For instance:

Paragraph 122 states:

"... where overlays are used, ten-digit dialing is required not only between the original NPA and the overlay NPA, but also within each NPA, to prevent anti competitive impacts on new entrants that may have few or no numbers in the original NPA." This statement overlooks the fact that dialing parity could be maintained between overlaid area codes without requiring 10-digits to be dialed, in fact, dialing parity can be maintained with only 8-digits being required. A full discussion of the 8-digit overlay is provided in the attached document, but the following brief explanation describes the basic concept:

> To make eight-digit dialing possible, telephone companies would assign a one-digit identifier to each area code in the overlay region. Customers could then dial local 7-digit telephone numbers and use an 8th digit to identify the area code. Within California's proposed 310/424 overlay region for example, the 310 area code would be identified by "0" and the "424" area code would be identified by "1". Dialing 1234567-0 would direct the call to the 310 area code, and dialing 1234567-1 would

[1] quoted from paragraph 122 of FCC 99-122.

direct the call to the 424 area code. Telephone numbers in future overlaid area codes in the region could be dialed using 1234567-2, 1234567-3, etc.[2]

Given that dialing fewer digits is important to consumers, serious investigation of this consumer friendly 8-digit overlay variation is warranted.

Paragraph 123 states:

"Mandatory ten-digit dialing works as a numbering optimization measure by freeing up more numbering resources for use, through the reclamation of protected codes." This is a weak justification for 10-digit dialing, since even the referenced footnote (#203) states that *"... protected codes... may be reclaimed without regard to whether mandatory ten-digit dialing is implemented."*

Also in paragraph 123:

"Mandatory ten-digit dialing works as a numbering optimization measure .... potentially through permitting the use of either "0" or "1" as the first digit of an NXX code (the fourth, or "D" digit, of a ten-digit telephone number)." The only justification for mandating 10-digit dialing nationwide would be to enable the release of the "D" digit, however 10-digit dialing should be considered as the last step in this process, instead of the first. Since the infrastructure does not currently exist to allow for "D" digit release, the industry should concentrate on making the necessary changes to the network first, and then require 10-digit dialing only after the network is prepared. Doing otherwise will needlessly inconvenience customers much earlier than is actually necessary. And, if 10-digit dialing is required as a first step, and then it turns out that the "D" digit never actually gets released, conversion to 10-digit dialing would have been completely unnecessary, and the consumer needlessly inconvenienced.

Also in paragraph 123:

"Moreover, the adoption of ten-digit dialing on a nationwide basis might eliminate disincentives for states to adopt overlays." As mentioned earlier, 8-digit dialing could be

[2] Dialing with "area code selectors" in this manner would not require changes to the North American Numbering Plan. The new 8th digit is merely used for dialing purposes and does not become a part of the actual NANP telephone address.

used to make overlays less objectionable. This 8-digit overlay might be viewed by the public as a relief option they can feel comfortable with, as it allows customers to keep their phone numbers, and only requires dialing one extra digit.

Paragraph 124 discusses possible benefits:

"Ten-digit dialing would allow future area code relief projects, particularly overlays, to be less disruptive to consumers." The idea of disrupting everyone now so that future disruption to local regions will not seem so bad, could not have been conceived with the best interests of the consumer in mind. It is not logical to penalize all customers in order to simplify things for service providers. *"Bell Atlantic Mobile states that mandatory ten-digit dialing may foster new and different uses for NPA overlays."* Compelling examples should be given of what these new and different uses might be, before telling customers they have to give up something (e.g., 7-digit dialing) that they already appreciate. *"Moreover, if ten-digit dialing were adopted as part of a national numbering optimization policy, customer confusion resulting from inconsistencies in dialing patterns from one area to another would be eliminated."* Other methods could be used to provide a uniform dialing method, such as 1+10 digit dialing on a permissive basis. *"PageNet also believes that ten-digit dialing would lower costs and reduce entry barriers, which, in turn, could result in lower prices and increased product and service innovation for all consumers. GTE further states that ten-digit dialing will prevent discrimination among service providers."* How much lower would the costs be? What is 7-digit dialing worth to today's customer? Would the overall savings be more than a few dollars per year for each customer? Customers might be reluctant to give up a free service that they are already happy with, in order to obtain possible, undefined future paid services that they might have no need for.

Paragraph 125:

This paragraph describes some of the acknowledged disruptive effects of mandatory 10-digit dialing. It should be noted that there are many apparent disadvantages surrounding the concept of mandatory 10-digit dialing.

Paragraph 126:

This paragraph seeks comment on whether the FCC should adopt nationwide ten-digit dialing, or whether states should be encouraged to implement 10-digit dialing as a priority. As noted in my earlier comments, there is no technical necessity at this time to implement 10-digit dialing in any circumstance, and it should not become a nationwide policy, nor should states be encouraged to implement it as a priority. Alternatives can be used, such as the 8-digit overlay described in these comments, to address all of the situations where 10-digits have been used with area code relief measures. The 8-digit overlay is a compromise that would serve both the telcos and the consumer.

Paragraph 127:

As expressed in my previous comments on "D" digit release, 10-digit dialing should be required as the final step in the process, rather than the first. Otherwise, the industry may find shortly after the introduction of 10-digit dialing that "D" digit release is not possible, or is not necessary, and therefore consumers will have given up simpler dialing patterns for no reason. Also, "D" digit release will only provide another 25% more numbers to the NANP. Considering how quickly the current NANP is being wasted, 25% will only provide another two to four years of resource before NANP expansion is required anyway. It is far more important to address the exhaust problem by using conservation measures (like number pooling and rate center consolidation) than to rely on expensive short term fixes like "D" digit release.

Paragraph 129:

MCI's concerns about how "D" digit release could hamper more orderly expansion of the NANP in the future should be given full consideration. The current "D" digit restriction is the key identifying characteristic of current NANP numbers, and any seamless transition the a future expanded NANP will depend on switches being able to easily distinguish between current NANP and expanded NANP numbers. The current restriction of the "D" digit allows for this, while premature release will not.

II. Area Code Relief
III. Area Code Splits
IV. Area Code Overlays
V. 8-Digit Dialing For Overlays (Fully Described In The Attached Document).

My comments on the four above topics can be summarized as follows:

Area code relief should be provided in a manner that is least disruptive for the public. As Commissioner Gloria Tristani states at the end of FCC 99-122:

"The Commission must act expeditiously to relieve the burden not only on the state commissions developing area code relief plans but most importantly on consumers, who face enormous costs and inconvenience each time area code relief is implemented. The carriers that serve these consumers have a vital role to play in forging solutions to promote efficient allocation and use of numbering resources. Accordingly, I urge telecommunications carriers and state commissions alike to participate in this proceeding to help craft a solution that will prevent the exhaust of our North American Numbering Plan."

I hope that the comments I have provided herein, and the information in the attached document regarding the 8-digit overlay, offer a point of view that will help regulators and telcos resolve the crisis that we are all currently enduring.

Respectfully submitted,

By _____
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July 30, 1999

ATTACHMENTS

ATTACHMENT

The following attachment represents the full text and all of the supporting materials pertaining to *"Comments of Gilbert J. Yablon Regarding 8-digit Dialing For Overlays, Filed Pursuant to ALJ Timothy Kenney's Ruling of June 29, 1999"* which was submitted to the California Public Utilities Commission on July 23, 1999.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's Own Motion Regarding Commission Policy on Area Code Relief.	R 98-12-014 (Filed December 17, 1998)

COMMENTS OF GILBERT J. YABLON REGARDING 8-DIGIT DIALING FOR OVERLAYS, FILED PURSUANT TO ADMINISTRATIVE LAW JUDGE TIMOTHY KENNEY'S RULING OF JUNE 29, 1999

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July 23, 1999

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's Own Motion Regarding Commission Policy on Area Code Relief.	R 98-12-014 (Filed December 17, 1998)

COMMENTS OF GILBERT J. YABLON REGARDING 8-DIGIT DIALING FOR OVERLAYS, FILED PURSUANT TO ADMINISTRATIVE LAW JUDGE TIMOTHY KENNEY'S RULING OF JUNE 29, 1999

The June 29, 1999 ruling by Administrative Law Judge Timothy Kenney instructed me to provide comments and detailed information pertaining to my May 4, 1999 *Motion to Have the Commission consider "A Simplified Dialing system for Overlaid Area Codes" AKA "The Unified Dialing Plan for Overlays"* (hereafter referred to as the "plan," the "8-digit overlay", the "SMART Overlay" or "the system").

Judge Kenney specified that I provide information on the following topics:

- A thorough description of 8-digit dialing.
- A statement of whether 8-digit dialing conforms with the NANP. If Yablon asserts that 8-digit dialing conforms with the NANP, he must present evidence and arguments in his comments that support his assertion.
- A statement of whether the Commission has authority to implement 8-digit dialing. If Yablon asserts that the Commission has such authority, he must present evidence and arguments in his comments that support this assertion, including why the Commission's authority is not preempted by the FCC pursuant to 251(e) of the act.
- A detailed showing that 8-digit dialing is feasible. This showing should address the following factors: (1) the scope of changes to the telecommunications network (e.g., switch modifications) that are required to implement 8-digit dialing; (2) the cost to telephone companies to implement 8-digit dialing; (3) the cost to the public to implement 8-digit dialing; (4) customer confusion, customer education, and the cost of customer education; and (5) compatibility with existing and planned overlays.

- A thorough explanation as to whether 8-digit dialing is compatible with local number portability.
- A thorough explanation as to whether 8-digit dialing is compatible with number conservation measures, such as number pooling and rate center consolidation.
- Whether 8-digit dialing can be used in conjunction with hexa-decimal dialing [as proposed by Bill Neill].
- A description of the two telecommunications industry reviews of 8-digit dialing [that were previously conducted]. Yablon shall append to his comments a copy of any formal reports and / or findings that resulted from these reviews. Yablon may also provide information that demonstrates why the concerns raised in the industry reviews are unwarranted.

I will address these issues in the order listed above.

- **A Thorough Description of 8-Digit Dialing:**

Background:

Before describing the 8-digit overlay dialing system, it is important to first establish the need for implementing it.

Until recently, area code relief was almost always provided through the use of area code splits. But splits are disruptive, frustrating and expensive for customers because they require half of the subscribers in a region to give up their established telephone numbers. Customer dissatisfaction with the splitting technique prompted overlays to be developed as an alternative.

Unlike area code splits, overlays can provide area code relief without requiring customers to change their phone numbers. This would seem to be a great advantage, but the requirement that 10-digits (or 1+10-digits) be dialed for all overlay calls has delivered a new form of disruption, frustration and expense to telephone users anyway. For customers, it merely seems like one set of problems has been exchanged for another, but going back to using disruptive area code splits in order to avoid overlay related problems is not a satisfactory solution. The problems have resulted from the way that overlays are currently implemented. Fortunately these problems can be resolved by enhancing overlays with some consumer friendly modifications.

The Plan:

The 8-digit dialing system for overlays resolves overlay related dialing problems by providing customers with two tools to make living with overlays easier. First, it offers a shortcut "8-digit method" for dialing 10-digit (or 1+10-digit) telephone numbers within the region; and second, it prevents calls dialed with only 7-digits from being rejected.

To make eight-digit dialing possible, telephone companies would assign a one-digit identifier to each area code in the overlay region. Customers could then dial local 7-digit telephone numbers and use an 8th digit to identify the area code. For example, the 310 area code would be identified by "0" and the "424" area code would be identified by "1". Dialing 1234567-0 would direct the call to the 310 area code, and dialing 1234567-1 would direct the call to the 424 area code. Telephone numbers in future overlaid area codes in the region could be dialed using 1234567-2, 1234567-3, etc.[1]

Telephone company equipment would be modified to expect 8-digits to be dialed. After the 8th digit is entered, the equipment would determine which area code has been selected. The 8-dialed-digits would then be converted to the proper 1+10-digit telephone address before being passed through the switch. The number enters the network as if the customer had originally dialed it as 1+10-digits.

But what happens when a customer or auto-dialer enters only 7-digits? In a "standard overlay", customers hear an announcement directing them to hang-up and redial using 1+10-digits -- a huge inconvenience (and a disruptive dead-end for auto-dialers programmed with only 7-digits). But with the 8-digit overlay, customers who forget about (or don't know about) the 8th digit would hear an announcement after a few seconds to help them complete their calls:

"To reach the 310 area code, dial "0" now. To reach 424, dial "1" now." [2]

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[1] Dialing with "area code selectors" in this manner would not require changes to the North American Numbering Plan. The new 8th digit is merely used for dialing purposes and does not become a part of the actual NANP telephone address (see ATTACHMENT 1).

[2] This is only one of several ways that the 8-digit protocol might be implemented. Different timing intervals and/or other announcement wording might be more appropriate. Focus group testing might even demonstrate that no announcement is needed at all (see ATTACHMENT 2A for full description of a version of the plan that may not need to use announcements).

Customers would have a few more seconds to enter the 8th digit, and after doing so their calls would be routed to the selected area code.[3]

Even if a customer used an auto-dialer programmed with only a 7-digit number, the 8th digit could be entered manually by the customer either before, during or after the announcement.

If for some reason the "8th digit" is still not entered, the call would default to the original area code of the region (in this case the 310 area code).[4] This default "safety-net" reduces the need for customers to reprogram or replace automated dialing devices (such as security building entry systems and other unattended auto-dialers)[5], and minimizes the kind of disruption that occurs when "standard overlays" are implemented. It also ensures that calls made by children or other people who might only know an established number as 7-digits, will not be rejected.

Calls "to" and "from" area codes that are outside of the 8-digit overlay region will continue to require 1+10-digits to be dialed (the same as was required before the overlay).[6]

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[3] There is no need to wait for the announcement before entering the 8th digit. Customers who are already aware of the plan would probably never hear this announcement since entry of the 8th digit would signal that the dialing string is complete, and the announcement would not be triggered.

[4] The "original" area code appears to be the logical choice to use for the default since the "original" area code would be the only area code in the region where 7-digit numbers had ever been valid. Calls to the newer area codes would never have been programmed or dialed with 7-digits since 8-digit or 1+10-digit dialing would always have been the only ways to dial these numbers. If a call is dialed with only 7-digits, telephone company equipment could assume with relative certainty that the call is intended for the "original" area code. A call of this type would have probably come from a pre-programmed auto-dialer, or would have been dialed by a child or someone who only knows the telephone number as 7-digits. Even though these types of calls can be completed by dialing only 7-digits, no dialing advantage is actually provided. Customers from all of the area codes within the region can dial these numbers in the same manner, and, the long delay after entering the 7th digit actually makes this a disadvantageous way to dial. Eight-digit calls and even 1+10-digit calls can be completed more efficiently. The true purpose for allowing 7-digit calls to default to the original area code is to prevent customers who already have an investment in the original area code from being penalized by a change to the dialing plan.

[5] This turned out to be a real problem in the 310 overlay. See ATTACHMENT 6 for an L.A. Times article on the subject.

[6] If the new "area code identifier" is inadvertently entered at the end of a 1+10-digit call, the identifier is ignored and the call completes to the 1+10-digit number that was dialed.

Customers always have the option of dialing 1+10-digits if they want to (even for local calls within the overlay region), but the 8-digit shortcut should make local calls easier for most customers.[7]

Variations:

This 8-digit overlay system can be adapted to any region within the NANP. It will work regardless of whether the dialing pattern to neighboring area codes requires 1+10-digit dialing (as in California) or 10-digit dialing (as is the case in most other parts of the NANP).

In regions where standard overlays have already been implemented, the 7-digit default "safety-net" may not be necessary. Since all 7-digit dialing patterns would have already been disrupted and abandoned, there would be no reason to preserve it. However, the 8-digit dialing feature could be offered by itself, and would provide customers in established overlay regions with an easier way to dial.

Implications:

Not only does the 8-digit dialing format require fewer digits to be dialed, but the dialing order of the number will also help to prevent misdials and customer frustration. In standard overlays, for instance, many customers habitually dial familiar 7-digit numbers and end up having to re-dial using 1+10-digits. In the 8-digit overlay, habitual dialing of 7-digit numbers is not a problem. After dialing 7-digits, customers enter the one-digit area code selector. If they forget, the announcement will remind them, and the call will be completed without frustration. Since 1+10-digit dialing is also supported for all calls, customers will never have to hang up and redial -- regardless of the format they begin dialing with.

The 7-digit default "safety-net", while offering no dialing advantage (because of the long delay), provides a way for calls from unattended auto-dialers to complete without reprogramming or replacement. Backward compatibility with previously established dialing patterns is maintained, minimizing customer frustration and expense.

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[7] Refer to ATTACHMENTS 2A and 2B for more details about this 8-digit dialing system for overlays.

The Commission's recent experience with the 310 overlay demonstrates that overlays can be a source of hardship and frustration for telephone users. The Commission also has vast experience with customers who are dissatisfied with area code splits -- which is why overlays have been considered in the first place. In their current form, neither relief option provides a satisfactory solution for telephone customers. In light of the above, investigation and consideration of the 8-digit overlay seems reasonable because it offers a way to implement area code relief with virtually no disruption, hardship or customer frustration.

A Statement Of Whether 8-Digit Dialing Conforms With The NANP. If Yablon Asserts That 8-Digit Dialing Conforms With The NANP, He Must Present Evidence And Arguments In His Comments That Support His Assertion.

Statement:

This 8-digit dialing system for overlays does not alter the ten-digit structure of the NANP in any manner, and therefore the plan does completely conform with the North American Numbering Plan.[8] The new 8th digit is only used for dialing and does not become part of the actual NANP telephone address.

The NANP is a numbering plan -- not a dialing plan, and though its format suggests logical groupings by which telephone numbers may be dialed, there appear to be no universal rules that define how NANP numbers must be dialed.

Evidence and Arguments:

The following description was taken directly from the NANPA website:

The NANP is the numbering plan for the Public Switched Telephone Network in the United States and its territories, Canada, Bermuda, and many Caribbean nations, including Anguilla, Antigua & Barbuda, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Dominica, Dominican Republic, Grenada, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, and Turks & Caicos.

NANP numbers are ten digits in length, and they are in the format:
NXX-NXX-XXXX

[8] See ATTACHMENT 1 for a statement, from a telecommunications industry numbering expert, which substantiates the claim that 8-digit overlays conform with the NANP.

Where N is any digit 2-9 and X is any digit 0-9. The first three digits are called the numbering plan area (NPA) code, often called simply the area code. The second three digits are called the central office code or prefix. The final four digits are called the line number.

Regional dialing plans have often been tailored to the specific needs of the communities where the NANP is implemented, as the following examples illustrate.

- In California, NANP numbers are typically dialed in the following formats:
  1 + NXX-NXX-XXXX (1 + the full ten digit number)
  NXX-XXXX (just the "prefix" and the "line number" -- the last seven digits).

- However, in most other states the dominant dialing format is as follows:
  NXX-XXXX for non-toll calls within the same area code.
  NXX-NXX-XXXX for non toll calls to a neighboring area code.
  1+NXX-NXX-XXXX for all toll calls, regardless of area code.

- And until recently, in many regions local calls to neighboring area codes could be dialed with just 7-digits -- the area code was not required unless the call was a toll call. This dialing feature was made possible through the use of "protected codes".

- In some rural areas of the NANP there are regions where a single prefix serves an entire rate center. In these regions telephone numbers are sometimes dialed in the following format:
  XXXX (just the "line number" -- the last four digits).

- And, when there are only a few prefixes in a region, 5-digit dialing is sometimes permitted:
  X-XXXX (just the last digit of the "prefix" and the four digit "line number")

- Other types of dialing are supported by many telephone companies through the use of "custom calling services". For instance "speed calling" is a "custom calling service" that lets subscribers dial calls by using only one-digit or one-digit and the "#" key, and in the near future voice recognition may allow calls to be dialed without entering any digits.

Clearly, there has always been a focus on finding ways to minimize the number of digits that customers are required to dial. The way that overlays are currently implemented is actually a departure from tradition. Customers would clearly prefer to dial fewer than 10-digits for overlay calls, and the 8-digit overlay provides a way -- within the numbering constraints of the NANP -- to do it.

A Statement Of Whether The Commission Has Authority To Implement 8-Digit Dialing. If Yablon Asserts That The Commission Has Such Authority, He Must Present Evidence And Arguments In His Comments That Support This Assertion, Including Why The Commission's Authority Is Not Preempted By The FCC Pursuant To Section 251(e) Of The Act.

Statement:

The 8-digit dialing system for overlays is a local dialing plan, and does not affect dialing or switching anywhere outside of the region where the plan might be implemented. All costs and modifications to equipment are also confined to the local region, and the plan does not require altering the 10-digit format of the NANP in any manner. The way the plan works is similar to the way a "custom calling service" works. It can be thought of as a feature that would be added to the services available in a California overlay region, and would have no more impact on the rest of the telecommunications network than a simple feature like "Speed Calling" or "Repeat Dialing".

Because the impact of the 8-digit overlay is local in nature, and isolated from the rest of the telecommunications network, the California Commission may already have the authority to implement it. However, there is one issue that may or may not have to be addressed first.

Section 251(e) of the Act pertains to "Numbering Administration" and "Number Pooling", and does not make reference to the FCC's authority concerning how numbers may be dialed.[9] The only dialing restrictions implied anywhere by the Act pertain to the issue of "dialing parity".

Dialing parity is a mandate requiring telecommunications providers to ensure that all customers within a region have equal access to all telecommunications services, regardless of which service provider the customer subscribes to. This "equal access to services" mandate extends to "equal dialing for services", in that no subscriber in a region should have to dial any extra digits to obtain an equal service.

Overlays presented a dilemma for the FCC. Even though 10-digit (or 1+10-digit) dialing is currently necessary for calls between area codes in an overlay, there is no technical reason why 7-digit dialing can't be used for calls within the individual area codes of the overlay. But the FCC determined that allowing this type of dialing pattern within

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[9] see ATTACHMENT 3 for the full text of Section 251(e) of the act. No reference is made to restrictions pertaining to dialing plans in that section.

overlays would violate the mandate for dialing parity -- customers would have to do something extra in order to dial customers or services that were not within their own area code. Many competitive and regulatory issues would be triggered by the dialing inequity that 7-digit / 10-digit overlays would create. To resolve this dialing imbalance, the FCC mandated dialing parity for overlays. The only tool available at that time for providing dialing parity in an overlay was to require mandatory 10-digit (or 1+10-digit) dialing for all calls.

Unfortunately, solving the dialing parity problem for service providers created a dialing hardship for subscribers. The 8-digit overlay, which was not available to the FCC when 10-digit dialing was mandated, solves the dialing parity problem without creating dialing hardship.

In March of 1998, I contacted the FCC's Common Carrier Bureau and inquired how to go about requesting that the FCC modify the 10-digit mandate. I spoke with Ms. Erin Duffy and Mr. Greg Cooke. I told them that I had developed an alternate way of providing dialing parity in overlays which would only require 8-digits to be dialed. They researched procedures, and Mr. Cooke later informed me that the FCC constantly considers new information and technologies that have a bearing on previous decisions. Mr. Cooke said that there are two avenues by which the FCC could be petitioned to consider a waiver on their 10-digit ruling. One avenue would be through a request from the North American Numbering Council (NANC) and the other avenue would be a request from a State Commission.

After obtaining this information I contacted the Telecommunications Division of the CPUC, and spoke with Ms. Risa Hernandez. I requested assistance in pursuing the wavier. Ms. Hernandez did some research and informed me that she had spoken with Mr. Cooke, and that he confirmed what I had told her.

If the California Commission does not currently have the authority to implement the 8-digit overlay, a petition could be filed with the FCC requesting a wavier of the 10-digit requirement in order to implement an 8-digit system that achieves the same dialing parity goal (with less customer discontent).

A Detailed Showing That 8-Digit Dialing Is Feasible. This Showing Should Address The Following Factors: (1) The Scope Of Changes To The Telecommunications Network (E.G., Switch Modifications) That Are Required To Implement 8-Digit Dialing; (2) The Cost To Telephone Companies To Implement 8-Digit Dialing; (3) The Cost To The Public To Implement 8-Digit Dialing; (4) Customer Confusion, Customer Education, And The Cost Of Customer Education; And (5) Compatibility With Existing And Planned Overlays.

Statement of Feasibility:

Another name for the 8-digit overlay is "SMART" (Simplified Multi Area Code Region Telephony). All that it does is provide a simplified way to dial ordinary 10-digit telephone numbers in regions that have more than one area code (i.e., overlays). The SMART Overlay was designed to work within the current capabilities of the telecommunications network. It does not depend on developing new technologies, does not alter the 10-digit format of the NANP, and could be implemented in a short time frame and at a reasonable cost.[10]

Brief Operational Overview:

In SMART Overlay regions, telephone companies will assign a single digit to each area code in the region. Then, customers can dial normal 7-digit numbers, and use an 8th digit to select the area code. Using this system, up to ten overlaid area codes (0-9) can be addressed in each overlay region, and customers can dial just 8-digits for all calls within their region.

SMART works like a custom calling service. The service is triggered when telephone company equipment determines that an 8-digit number is being dialed. This test will be simple to implement, as it is the same test that is currently used to determine whether a 7-digit number is being dialed.

After the 8th digit is received, telephone company equipment examines the 8th digit to determine which area code the customer specified (referencing a simple ten entry lookup table). The equipment then converts the 8-dialed-digits into the "specified area code" + "7-digit number" (or 1 + "specified area code" + "7-digit number), and

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[10] see ATTACHMENT 1 for expert statement regarding technical viability.

introduces the number to the network as if it had been originally dialed as a 10-digit (or 1+10-digit) number.

Announcements could be provided after the 7th digit to educate people who are unfamiliar with the plan. The announcement could instruct customers how to enter the area code selector digit. The following is an example of a announcement that could be used: ***To reach the 310 area code, dial "0" now. To reach 424, dial "1" now.***

If the 8th digit is not entered after a few more seconds, the call could be completed to the "original" area code, or, if regulators prefer, the call could be rejected as incomplete. If 7-digit calls are allowed to complete it would help minimize the disruption that normally accompanies area code splits and overlays. Preserving the established 7-digit dialing pattern in this manner would provide a "safety-net" to ensure that calls made by pre-relief unattended auto dialers would not be lost. It could also ensure that calls made by children or others who only know the number as 7-digits will still be able to complete. Even though calls of this nature can be made with only 7-digits, there would be no advantage to intentionally dialing this way. Because of the long delay (10 to 20 seconds after the 7th digit) it is more expedient to simply enter the 8th digit (even 1+10-digits would be faster). The only reason for offering this feature is to keep customers who already have an investment in the original area code (auto-dialers, security entry systems, etc.) from being penalized because of a dialing pattern change.

Scope of Changes to the Telecommunications Network:

As noted earlier in this document, any modifications to the telecommunications network that this plan might require, would be confined to the local regions where the plan is implemented. The exact modifications will depend on the specific equipment that is currently being used in the region. Since SMART is designed to be used with overlays, much of the work has already been done. The telecommunications industry has already designed "Multi Area Code Region Telephony", and all that SMART will do is simplify it. Telephone company equipment will have to be modified to support the following functions:

1) Create a ten entry lookup table, in which each area code in the overlay is given a one-digit identifier (there would be enough room for ten overlaid area codes 0-9).
2) Determine if an 8-digit number is being dialed, using the same system or logic that currently recognizes 7-digit numbers.
3) If necessary, provide an announcement after the 7th digit instructing those unfamiliar with the plan how to complete the call.
4) If the 8th digit does not get entered, assume that the 8th digit is "0" (this would force a default to the "original" area code).
5) Compare the 8th digit to the lookup table and determine which area code has been selected.
6) Convert the 8-dialed digits into a 10-digit number (or 1+10-digit number).
7) Send the number through the switch as if it had originally been dialed as 10-digits or 1+10-digits.
8) From this point on SMART has no impact on the network - it merely serves as a dialing helper.

It may very well be that the entire functionality of SMART could be provided in the same manner that "custom calling services" are currently provided. Companies like Lucent and Nortel could provide this functionality as an option in their switches or switching software.

It may also be the case that the functionality could be provided through the use of an intelligent peripheral that would be connected to existing switches.

Clearly there are many ways that the network modifications might be implemented. Though there has been a lot of resistance to this proposal from the telecommunications industry, several industry experts have indicated that this plan is technically workable, and that it could be "relatively simple" to implement. However, the exact methods and costs cannot be determined until a comprehensive technical evaluation and cost analysis is conducted by the telecommunications industry themselves.[11]

Wireless Considerations:

[11] see ATTACHMENT 1 for a telecommunications industry expert's evaluation.

It may require even less effort for wireless carriers to implement the 8-digit overlay. Since wireless customers transmit all of their dialed digits to the carrier at the same time, wireless telephone company equipment can immediately determine how many digits the customer has dialed, and act accordingly.

Recording and Billing Equipment Issues:

SMART acts as a pre-filter for dialing purposes only (much like the speed dialing feature that is built into many telephone company switches). The 8-dialed digits are converted to standard 10-digit (or 1+10-digit) telephone numbers before any of the digits are actually presented to the network for recording or billing services. Therefore SMART has no impact on these services.

Scope of Changes to CPE (Customer Provided Equipment):

One of the main advantages of this plan is that it minimizes the impact on devices such as speed dialers, burglar alarms, and auto dialers because it minimizes the need for reprogramming. With other forms of area code relief reprogramming is necessary if the numbers that were previously programmed are split off into a new area code, or when 7 digit numbers need converting to 10 or 1+10 (as would be the case if a standard overlay were implemented).

In many cases, a PBX or telephone key system might be unaffected by the plan since the suffix logic is handled at the network switch level. Some PBX software changes might be necessary to enable inspection and conversion of the 8th digit, or to allow release of the 8th digit. This might actually be less disruptive to a PBX than the changes that are necessary after a traditional area code split. Any problems that are caused may well be less significant than those created by recent changes that have been made to the NANP, i.e. PBX problems caused by 2-9 being used for the second digit of an area code and 0-1 being used for the second digit of a prefix.

Costs:

All forms of area code relief have costs associated with them. The measurable costs include telephone company costs, direct costs to local business, and direct costs to the

public. Loss of convenience (resulting in greater hardship) should also be factored in when evaluating the overall impact of a specific area code relief technique.

It is estimated that a single area code split costs local businesses between 20 and 40 million dollars, and the phone companies spend another 6 to 10 million per split. Some businesses indirectly lose revenues due to number changes, and the disruptive nature of the splitting technique has created hardship for businesses and consumers alike. All of this makes area code splitting a very expensive and undesirable relief option.[12]

Overlays are relatively new, and it is not yet clear what the overall cost of an overlay might be. In the long run it appears that overlays might be somewhat less expensive than area code splits, but it is clear that overlays do generate some immediate expenses as well as permanent inconveniences.[13] Recent experience with the 310 overlay reveals where some of the immediate costs come from. Burglar alarms, security building entry systems, elevator telephones, and every other type of auto-dialing device required reprogramming and / or replacing. Many small business and consumers spent a full day or two of lost productivity getting all of their telephone and computer equipment functioning properly with 1+10-digit dialing. And, the lingering inconvenience and frustration that has resulted from mandatory 1+10-digit dialing has taken an emotional and financial toll on the 310 community as well as state and city governments and the CPUC. The overall cost of the 310 overly will probably approach twenty to forty million dollars even though in theory overlays should be less expensive.

Given the current cost of the alternatives, the SMART Overlay has a pretty big budget to work with. Only the telecommunications industry will be able to determine the exact costs for implementing 8-digit overlays. In making their cost evaluation, the industry should determine the cost for the first SMART implementation (which would include system analysis, developing the software protocols and the actual cost for implementation), and then should determine what the cost of future SMART

[12] see ATTACHMENT 7 and 8 for an articles covering costs and disruption due to area code splits.
[13] see ATTACHMENT 6 for an article on unexpected overlay costs.

implementations would be. Evaluating both of these figures together will determine the cost effectiveness of the plan.

Consumer group studies will help to determine the impact that the 8-digit overlay will have on local business and the public. However, given that the 8-digit overlay resolves many of the problems that customers face with area code splits and standard overlays, the cost to the public, both financial and emotional, should be minimal.

Clearly, with area code splits and standard overlays the public has been saddled with the majority of the overall costs. And in the long run, the public even ends up paying for the industry's costs as well. If analysis shows that the cost of the 8-digit overlay would not be significantly different than the cost of the alternatives, shouldn't the 8-digit overlay be considered as an option? That way the public would finally get some benefit from the money it spends on area code relief.

Customer Confusion:

Though the 8-digit overlay is different than current relief options, customer confusion might actually be less of a problem than it is with area code splits and standard overlays.

The concept of 8-digit dialing seems to be an intuitive solution that individuals constantly suggest as a way to resolve number shortages. ATTACHMENT 9 is a collection of Letters-to-the-Editor, all of which describe variations on the theme of 8-digit dialing. Unlike the 8-digit overlay, the plans described in these letters would involve expanding the format of the North American Numbering Plan (and therefore cannot be implemented at this time), however, providing new numbers in this manner makes immediate sense to the same subscribers who are baffled by the disruptive effects of area code splits and standard overlays. I don't recall ever seeing letters that sing praises for either of our current options, but I have seen many letters that ask "why are we doing it this way?"

The 8-digit overlay gives customers what they have been asking for -- everyone gets to keep their existing phone numbers and they only have to dial one extra digit for calls within their regions. Implementation of the 8-digit overlay is not hampered by the

same restrictions that apply to 8-digit plans that alter the 10-digit NANP address, and therefore it offers a technically workable way to provide area code relief with a minimum of disruption and customer confusion.

Even customers who are totally unaware of the new 8-digit dialing pattern would be able to complete calls without redialing. The announcement following the 7th digit would instruct customers how to enter the 8th digit.

Customer Education:

Customer education would be relatively simple for the 8-digit overlay because very little changes when the plan goes into effect. The steps outlined below describe how to convert non-overlay regions to 8-digit overlays.

- Flyers would be sent with monthly phone bills, describing the new dialing pattern.
- Customers would be told that a new digit has been added to the end of their telephone number.
- Customers would be told to remember their numbers as:

  (310) 1234567 - 0

- Customers will be told the "date" that permissive dialing of the new digit will begin.
- A sticker should be sent out with each telephone bill. The sticker should be applied to all telephones, and would say something like:

  8-digit dialing begins 7/17/99

  7 digit phone number + 0 = 310 area code

  7 digit phone number + 1 = 424 area code

- On the "date", a courtesy delay (of 1 or 2 seconds) would give customers an opportunity to practice entering the new 8th digit. Since there would be only one area code to choose from during the permissive period, there would be no need to actually enter the digit. During the permissive period, all calls have to be intended for the original area code because that's the only one that exists.

Customers can enter 1234567-0 and avoid the short delay. If customers only enter 1234567, they will have to wait an extra 1 or 2 seconds.

- As each month of the permissive period passes, the courtesy delay could be increased slightly. As the delay got longer, customers would be more motivated to skip the delay by entering the extra "0". Phone company literature, newspaper articles and PSAs would also continue to educate customers, and encourage them to enter the 8th digit.
- Perhaps around the 4th month of the permissive period, an announcement after the 7th digit could instruct customers who were still not entering the "0". The announcement might say something like: ***"To reach the 310 area code, you can avoid this delay by dialing "0" now."***
- At the end of the permissive period the new area code could be introduced. All telephone numbers from the new area code would always be distributed in the following form: (424) 1234567 - 1
- After the new area code is introduced, the announcement would be changed to something like:

  "To reach the 310 area code, dial "0" now. To reach 424, dial "1" now."
- When more area codes are added, the message will be expanded. In actual practice, the message will seldom be heard since most customers will have already entered the new 8th digit before the announcement is triggered.
- Note: If the new digit is inadvertently entered after dialing a 10-digit or (1+10-digit) number, it is ignored, and has no effect on dialing (the same as if you entered an extra digit today).

The Cost of Customer Education:

The cost of customer education would not be any higher than the cost incurred with a standard overlay, however it would probably be more effective. Since the 8-digit overlay actually helps customers complete their calls without having to redial, the education process will seem to be more successful.

Compatibility with Existing and Planned Overlays:

There is no reason why the 8-digit overlay cannot be implemented on top of existing overlays - in fact it is even easier to convert existing overlays. This system would even work well with the half implemented 310 overlay. The permissive period described above could be skipped. Eight-digit dialing could be seemlessly introduced in the following manner:

- Flyers would be sent with monthly phone bills, describing the new dialing pattern.
- Customers would be told that a new digit has been added to the end of their telephone number, and that 8-digit dialing would consist of dialing the 7-digit portion of their telephone number plus this new "8th" digit when making calls within their overlay region.
- Customers would be told to remember their numbers as:

  (310) 1234567 - 0
- Customers will be told the "date" that 8-digit dialing will be available.
- A sticker should be sent out with each telephone bill. The sticker should be applied to all telephones, and would say something like:

  8-digit dialing begins 7/17/99

  7 digit phone number + 0 = 310 area code

  7 digit phone number + 1 = 424 area code
- On the "date", customers could begin dialing with 8-digits if they wanted to. If for some reason they only dialed 7-digits, after a few seconds an announcement would provide the following instructions:

  "To reach the 310 area code, dial "0" now. To reach 424, dial "1" now."
- Customers don't have to ever use the 8-digit method if they don't want to. They can continue to dial with 1+10-digits if they prefer. Both types of dialing would be supported.
- When more area codes are added, the message will be expanded. In actual practice, the message will seldom be heard since most customers will have already entered the new 8th digit before the announcement is triggered.

- Note: If the new digit is inadvertently entered after dialing a 10-digit or (1+10-digit) number, it is ignored, and has no effect on dialing (the same as if you entered an extra digit today).
- Note: The 7-digit default would probably not be enabled in cases where 8-digit dialing is implemented on top of an existing overlay, since all 7-digit systems would have already been abandoned.

A Thorough Explanation As To Whether 8-Digit Dialing Is Compatible With Local Number Portability:

Explanation:

Numbers dialed through SMART are always converted to standard NANP numbers before they enter the network, and thus will behave like any other traditionally dialed number. The 8-dialed digits are converted to standard 10-digit (or 1+10-digit) telephone numbers. The network and the local number portability database will interact with the number as if 10-digits (or 1+10-digits) had been originally dialed. Therefore this 8-digit dialing system is compatible with local number portability.

A Thorough Explanation As To Whether 8-Digit Dialing Is Compatible With Number Conservation Measures, Such As Number Pooling And Rate Center Consolidation:

Explanation:

For the same reasons that this 8-digit dialing system is compatible with local number portability, it is also compatible with all of the stated number conservation measures.

Whether 8-digit dialing can be used in conjunction with hexa-decimal dialing described earlier in this ruling:

Explanation:

For the same reasons that this 8-digit dialing system is compatible with local number portability, it is also compatible with Bill Neill's hexa-decimal dialing proposal. If

Mr. Neill's system can be implemented, the 8-digit overlay will not affect it, nor will his proposal affect the 8-digit overlay.

A Description Of The Two Telecommunications Industry Reviews Of 8-Digit Dialing. Yablon Shall Append To His Comments A Copy Of Any Formal Reports And / Or Findings That Resulted From These Reviews. Yablon May Also Provide Information That Demonstrates Why The Concerns Raised In The Industry Reviews Are Unwarranted:

The California Telecommunications Industry's Review:

In May of 1997, I presented The Unified Dialing Plan for Overlays at the Camarillo public hearing for the 805 area code. Ms. Eleanor Szeto presided over the meeting for the CPUC, and Mr. Doug Hescox was the representative from the California-Nevada Code Administration. In response to my presentation, the California Telecommunications Industry met a few months later to evaluate the proposal. The review and its conclusions were disappointing. The industry's comments demonstrated that they had many misunderstandings about the plan, but the review was conducted as if they understood it fully. I was not invited to participate in the review, nor was I contacted to answer any questions or to provide any clarifications. The findings of the review were sent to me and to the CPUC. I later spoke with Ms. Szeto and Mr. Hescox at a hearing for the 310 area code in November of 1997, and relayed to them my concerns about the misunderstandings in the review. I asked how I could respond to the review and, Ms. Szeto indicated that I could send my comments to Mr. Hescox and to herself. ATTACHMENT 4 is a copy of the industry's review and my response to each of the industry's comments.[14] I sent the response document to Ms. Szeto and Mr. Hescox on December 3, 1997.

[14] Attachment 4 is a word-for-word reproduction of the industry's review, combined with my responses. I have also attached the cover letters that I sent with the document to Ms. Szeto and Mr. Hescox. A copy of the industry's original document is also available.

The comments and responses in ATTACHMENT 4 establish that the industry's concerns in this review are largely based on misunderstandings, and should not be taken as gospel.

The Industry Numbering Committee's Review:

In July of 1998 I presented The Unified Dialing Plan for Overlays to the Industry Numbering Committee (INC), with the expectation that "numbering experts" would be able to fully understand the plan, and how it would minimize the disruptive effects of area code relief. The INC accepted my proposal as an official issue (INC Issue#141), and worked it during three consecutive conferences in San Diego California, Edmonton Canada, and San Antonio Texas. I traveled extensively to participate in these conferences, to ensure that there would be no misunderstandings. The INC did take the time to fully understand the proposal, but as a united political unit, the INC made it clear that they were not interested in supporting it. In matters of area code relief, the industry supports the credo that "the customer will adapt". Minimizing hardship for the customer is not a priority for the Telcos, especially these days when the disruption is being fueled by fierce competition in the telecommunications industry.

It's no secret that the telecommunications industry is in love with the idea of "uniform 10-digit dialing" for everybody, regardless of customer resistance to the idea.[15] Overlays are being used by the industry to help move the country into uniform 10-digit dialing, and a consumer friendly plan that would create an 8-digit overlay for customers interferes with the industry's vision. Uniform 10-digit dialing would certainly be simpler for the telephone companies, but what about the needs and wishes of the customer?

ATTACHMENT 5 is the full text of INC Issue 141. I have duplicated the findings below, and I will address each of the INC's concerns in the paragraphs that follow.

5. RESOLUTION

The INC identified and discussed the following technical and public policy concerns about Non-Disruptive Alternatives for Area Code Relief Using Overlays:

- Competitive Dialing Issues

[15]The INC has written a document entitled the "Uniform Dialing Plan", which outlines the industry's plan to institute mandatory 10-digit dialing for all calls - everywhere in the NANP.

- Different Network and Operations Support Systems vs. Current 10 Digit Overlay Implementation Requirements
- Network Timing Issues (i.e., Post Dialing Delay and Announcement Duration)
- Telephone Directories and Listing Services
- End User Concerns
- CPE Impacts
- Concerns About Implementation Costs
- Ubiquitous Deployment Issues (e.g., National Carriers)

Consequently, the INC decided against further work on this issue as it currently exists.

Competitive Dialing Issues

The 8-digit overlay does not present any competitive dialing issues that are not already generated by standard 10-digit overlays. The CLECs are mainly concerned that an 8-digit option will make overlays more appealing to the public. If overlays become popular, the CLECs are concerned that they will get stuck with number inventories from the new area code, and that they will have a hard time selling them.

It's the same argument that has been going on between ILECs and CLECs since overlays were first considered as a relief option. Meanwhile, customers continue to be the casualties in this war.

Different Network and Operations Support Systems vs. Current 10 Digit Overlay Implementation Requirements

Naturally the 8-digit overlay will require some new systems and possibly some new hardware that is not part of the current 10-digit overlay requirement. However, using this as a reason to reject 8-digit dialing is like a landlord saying "to give tenants enough hot water would require installing a different water heater, so you will just have to take cold showers instead". Not many landlords could get away with that, especially if they were the ones responsible for using up all the hot water in the first place.

New systems will have to be implemented to translate the 8-dialed digits into 10-digit numbers, however the task is not monumental, and the costs could be justified. The INC did nothing to investigate the scope of the changes that would actually be required, and that was the disappointing part of their evaluation.

Network Timing Issues (i.e., Post Dialing Delay and Announcement Duration)

Again, the INC did not conduct a study of what the actual impact of these two factors would be. With current methods of area code relief there are also delays and wasted network time. With both area code splits and standard overlays there are numerous misdials while people are learning the new dialing pattern, and with a 10-digit overlay every call will always take 42% to 57% longer to dial because of the extra digits that are required.

It is clear that this item requires further study to determine whether or not these delays are actually significant. Analysis should also consider that the permissive dialing period would require minimal delays and no announcement. And, as people get familiar with the plan there will be fewer and fewer instances where timing or the announcement actually get invoked.

Telephone Directories and Listing Services

The INC had a concern about how telephone numbers would be listed in directories and how 411 would verbalize telephone numbers. No one made any suggestions about what the format might potentially be, or what problems might occur due to these listings, however it was stated as a concern, so I will address it.
One solution for directories might be to put a legend at the top of every page. The legend would be something like this:

legend: 7-digits + "0" = 310 area code	7-digits + "1" = 424 area code

999-1234-0
956-5555-1
347-9426-1
883-5342-0
213 594-8882
818 962-5321
654-8920-1
678-9572-0

Is it clear what area code each of these numbers is in?

The 411 operator could verbalize the following:
The number is 310-942-5333, overlay 0.
or The number is 424-583-1234, overlay 1.

Focus groups could determine if other language might be better, however it doesn't really seem that complicated.

End User Concerns

Earlier in this document there is a discussion about Customer Confusion and Customer Education. That discussion could be repeated here, but basically, it is very likely that customer confusion in an 8-digit overlay might actually be less of a problem than it is with area code splits and standard overlays.

CPE Impacts

This was also discussed earlier. Most CPE would not be affected at all, and might not even need reprogramming. However some PBX software may need to be updated.

Concerns About Implementation Costs

The response to this concern has also been covered earlier. The industry will have to do a detailed cost analysis that compares all area code relief options in order to determine whether or not costs are a significant issue for the 8-digit overlay.

Ubiquitous Deployment Issues (e.g., National Carriers)

One of the major advantages of this plan is that implementation costs are confined to the local area where the plan is actually implemented. Usually the reason the telecommunications industry gives for not implementing requested changes is that the change would impact all switching equipment in the NANP, which would be too costly. With the 8-digit overlay, the industry is complaining that the modifications would be localized, and would not pertain to all of their equipment. This cannot be ethically argued both ways. The fact that the Telcos are buying up the competition nation wide and are becoming de-facto monopolies once again should not be used to persuade regulators why customers in a local region should not be given better service.

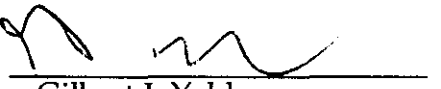
Conclusion:

The INC's review, though technically more astute than the California Telecommunications Industry Review, is clearly a political statement. None of the Telcos want to implement this plan because it doesn't serve the Telcos. How many customers will they gain if they implement this plan? The answer is none, we are already a captive audience. How many customers will they loose if they don't implement this plan? Again the answer is none, we will always be a captive audience.

On July 8th, a town hall meeting was held in Santa Monica -- the center of the 310 area code overlay. The meeting was attended by two CPUC Commissioners, several of the Commission's staff, State Assembly member Sheila Kuehl, and about 400 consumers who are very unhappy about 11-digit dialing. An astute statement was made by one of the panel members, and it went something like this "it is interesting that all of the companies are competing with each other to get the chance to offer customers every kind of new service imaginable - except the one they want!"

The 8-digit overlay can help give customers what they want - area code relief with minimal disruption and hardship. And the 8-digit overlay can help give the telecommunications industry what they want - area code relief without resistance from the public. If the industry will look for things that are "right" about this proposal, and work together to modify what "might be wrong", everyone will benefit.

Respectfully submitted,

By 
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ATTACHMENTS